

THE STATE OF DELAWARE



DEPARTMENT OF TRANSPORTATION
OFFICE OF TRANSPORTATION SOLUTIONS
PLANS AND SPECIFICATIONS FOR

CONTRACT NUMBER - T201606110

NORTH MAINTENANCE

FEDERAL AID NUMBER - ESTP-2016(20)

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CONTRACT TITLE- PAVEMENT & REHABILITATION, NORTH X, 2016

PLANS PREPARED BY

George LeCates

DESIGN TECHNICIAN

DATE RECOMMENDED: 3/8/16

Chris Be...

GROUP ENGINEER, CONSTRUCTION - GROUP 1

DATE RECOMMENDED: 3/9/16

David A. Nicol

ASSIST. DIRECTOR, ENGINEERING SUPPORT

DATE RECOMMENDED: 3/9/2016

Robert B. McCleary

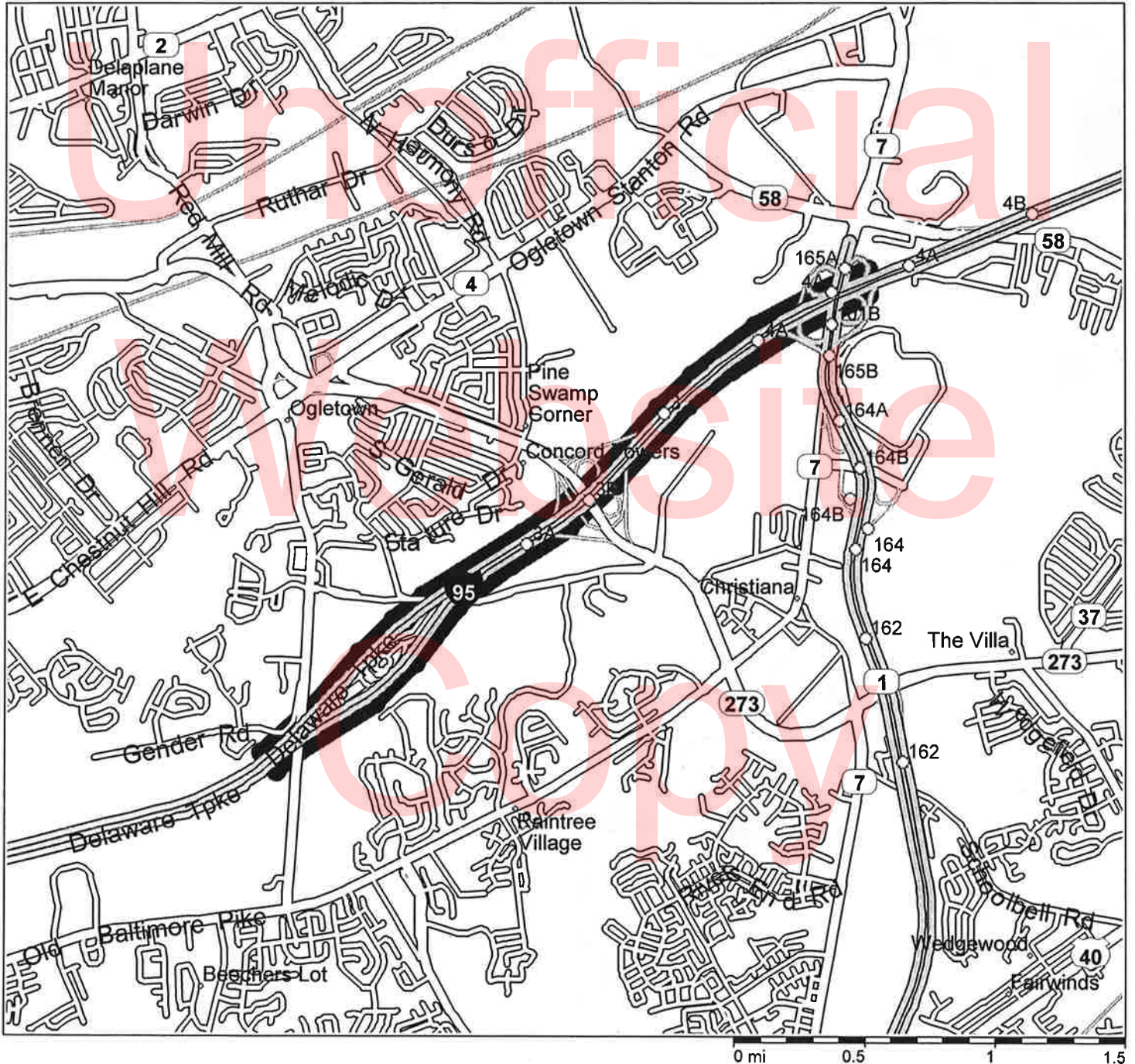
CHIEF ENGINEER



**JOHN F KENNEDY MEMORIAL HIGHWAY FROM BITUMINOUS CONCRETE JOINT SOUTH OF OF
SALEM CHURCH ROAD BRIDGE TO BITUMINOUS CONCRETE JOINT AT I-95/SR1
INTERCHANGE**

LOCATION MAP

Location #1 - John F. Kennedy Memorial Highway from Bit. Concrete Jt. South of Sa...



DEPARTMENT OF TRANSPORTATION

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PAVEMENT AND REHABILITATION, NORTH X, 2016

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GENERAL CONTRACT PLAN NOTES

REVISED 9/2015

GENERAL

1. CONSTRUCTION OF THIS CONTRACT SHALL CONFORM TO DELAWARE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS DATED AUGUST 2001 AS AMENDED BY THE SUPPLEMENTAL SPECIFICATIONS, THE SPECIAL PROVISIONS, THE MOST RECENT STANDARD CONSTRUCTION DETAILS, DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND THESE PLANS.

2. THE PURPOSE OF THIS CONTRACT IS TO MAKE GENERAL IMPROVEMENTS TO ROADS AND/OR STREETS WITHIN THE DISTRICT HEREIN SPECIFIED. DEPENDING ON FUND AVAILABILITY, THE DEPARTMENT RESERVES THE RIGHT TO ADD OR DELETE LOCATIONS AND/OR QUANTITIES FOR THIS CONTRACT. SUCH LOCATION OR QUANTITY ADDITIONS OR DELETIONS SHALL NOT BE CAUSE FOR AN INCREASE OR DECREASE IN ANY CONTRACT UNIT BID PRICES. NO ITEM PRICES ARE TO BE RENEGOTIATED DUE TO EITHER AN INCREASE OR DECREASE IN QUANTITY USAGE RESULTING FROM SAID ADDITIONS OR DELETIONS.

3. THE CONTRACTOR SHALL PROVIDE ALL RESIDENTS AND BUSINESSES WHO LIVE ADJACENT TO THE WORK ZONE A MINIMUM 48 HR. PRIOR WRITTEN NOTICE FOR THE START OF CONSTRUCTION WORK. THIS NOTIFICATION SHALL INCLUDE THE SCOPE OF WORK, WORKING HOURS, ANTICIPATED START AND COMPLETION DATES, CONTRACTOR NAME & ADDRESS, AND DELDOT CONTACT NUMBERS. FAILURE TO GIVE PROPER NOTICE WILL RESULT IN A SUSPENSION OF WORK REQUIRING NOTICE, UNTIL PROPER NOTICE IS PROVIDED. ACCESS TO ALL BUSINESSES AND RESIDENCES WITHIN THE PROJECT LIMITS SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THIS CONTRACT. ANY TEMPORARY CLOSURE OF A DRIVEWAY FOR TIE-IN PURPOSES SHALL BE COORDINATED WITH THE ENGINEER AND/OR PROPERTY OWNER IN ADVANCE OF THE CLOSURE.

4. THE CONTRACTOR SHALL SUBMIT THE REQUIRED COPIES OF A DETAILED PROGRESS SCHEDULE (PSC) AS OUTLINED IN STANDARD SPECIFICATION 108.04 PRIOR TO OR AT THE PRECONSTRUCTION MEETING. DETAILS SHALL INCLUDE A DESCRIPTION OF EACH WORK ACTIVITY, THE PLANNED DAYS OF WORK, MULTIPLE CREWS OR SHIFTS, AND SCHEDULED WORKING HOURS. DURING THE CONTRACT, THE CONTRACTOR SHALL SUBMIT TWO-WEEK (OR AS REQUIRED) "LOOK AHEAD" SCHEDULES TO THE AREA ENGINEER/ MANAGER NO LATER THAN NOON OF EACH THURSDAY.

GENERAL CONTRACT PLAN NOTES

FAILURE TO COMPLY WILL RESULT IN A SUSPENSION OF ALL CONTRACT WORK WITH TIME CHARGES CONTINUING TO BE ASSESSED.

MAINTENANCE OF TRAFFIC

5. THE CONTRACTOR SHALL BE REQUIRED TO SHOW PROOF THAT HE HAS SUFFICIENT APPROVED STRIPING MATERIALS ON HAND TO ENSURE STRIPING IS COMPLETED PRIOR TO FULL OPENING ROADWAY TO TRAFFIC.

6. WITHIN THE MAINLINE WORK AREA, PERMANENT ADVANCE WARNING SIGNS WITH THE LEGENDS "ROAD WORK 1500 FT", "ROAD WORK 1000 FT", AND "ROAD WORK 500 FT" SHALL BE INSTALLED IN ADVANCE OF THE WORK AREA IN BOTH DIRECTIONS. AN "END ROAD WORK" SIGN SHALL BE LOCATED 500 FEET DOWNSTREAM FROM THE WORK AREA. ON INTERSECTING ROADWAYS WITHIN THE PROJECT LIMITS, A "ROAD WORK AHEAD" SIGN SHALL BE PLACED AT A DISTANCE NOT LESS THAN 500 FEET DOWNSTREAM OF THE WORK AREA. ALL PERMANENT ADVANCE WARNING SIGNS SHALL BE GROUND-MOUNTED ON TWO NCHRP-350 OR MASH APPROVED BREAKAWAY POSTS AND SHALL BE MOUNTED IN COMPLIANCE WITH THE DE-MUTCD. PERMANENT ADVANCE WARNING SIGNS SHALL BE MOUNTED AT A HEIGHT OF 7 FEET, MEASURED FROM THE ROADWAY TO THE BOTTOM OF THE SIGN. THE USE OF SKID-MOUNTED SIGN SUPPORTS IS NOT ALLOWED UNLESS THE CONTRACTOR CAN DEMONSTRATE THAT A UTILITY CONFLICT EXISTS, WHICH SHALL BE VERIFIED BY THE ENGINEER; OR CONCRETE MEDIANS PREVENT THE INSTALLATION OF THE PERMANENT SIGNS IN THE APPROPRIATE LOCATION.

7. AT THE END OF EACH DAY'S OPERATION AND BEFORE TRAFFIC IS RETURNED TO UNRESTRICTED ROADWAY USE, TEMPORARY STRIPING SHALL BE UTILIZED AT LOCATIONS THAT REQUIRE PERMANENT STRIPING. TEMPORARY PAVEMENT STRIPING MUST MATCH PERMANENT PAVEMENT STRIPING IN ALL REGARDS. TEMPORARY PAVEMENT MARKINGS SHALL BE PAID AT THE APPLICABLE CONTRACT UNIT PRICE. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE TEMPORARY MARKINGS IN GOOD CONDITION SUCH THAT THE PAVEMENT IS PROPERLY DELINEATED AT ALL TIMES. ANY REFRESHING OF THE TEMPORARY MARKINGS WILL BE AT THE CONTRACTOR'S EXPENSE.

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GENERAL CONTRACT PLAN NOTES

8. ALL WORK SHALL BE PERFORMED IN A MANNER THAT WILL REASONABLY PROVIDE THE LEAST PRACTICABLE OBSTRUCTION TO ALL ROAD USERS, INCLUDING VEHICULAR, PEDESTRIAN AND BICYCLE TRAFFIC, AND SHALL CONFORM TO THE REQUIREMENTS OF THE 2011 DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, PART 6, INCLUDING ALL REVISIONS UP TO THE DATE OF ADVERTISEMENT FOR BIDS.

9. CURB RAMP AND/OR SIDEWALK CONSTRUCTION (NOT INCLUDING MEDIAN ISLANDS) SHALL BE COMPLETED DURING A SINGLE OPERATION. THE RAMP/SIDEWALK SHALL BE REMOVED AND PLACED BACK THE SAME NIGHT/DAY AND OPEN TO PEDESTRIAN TRAFFIC THE FOLLOWING DAY. THE USE OF A MONOLITHIC POUR SHALL BE PERMITTED WITH A BOND BREAKER TO BE PLACED AT THE BACK OF THE CURB AND EDGE OF SIDEWALK. IF THE CURB RAMP/SIDEWALK CANNOT BE COMPLETED IN A SINGLE OPERATION THE EXCAVATED AREA MUST BE BACKFILLED TO GRADE WITH COMPACTED MILLING MATERIAL ONLY. THIS MATERIAL WILL BE INCIDENTAL TO THE CURB RAMP ITEM. THE DRESSING UP OF THE AREA BEING PAID AS A CURB RAMP WITH TOPSOIL AND SEED WILL BE INCIDENTAL TO THE CURB RAMP ITEMS. THE CONTRACTOR SHALL MAINTAIN ACCESS TO AND ALONG PEDESTRIAN FACILITIES AT ALL TIMES DURING CONSTRUCTION. EARTH, STONE AND GRAVEL SURFACES ARE NOT ACCEPTABLE FOR PROVIDING PEDESTRIAN ACCESS. IF CURB RAMP CANNOT BE COMPLETED IN A SINGLE OPERATION AND PEDESTRIAN ROUTES ARE CLOSED OR BLOCKED, ALTERNATE PEDESTRIAN ACCESS SHALL BE PROVIDED USING TA-28 AND/OR TA-29 OF THE 2011 DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES OR TO THE SATISFACTION OF THE ENGINEER. PEDESTRIAN DETOUR ROUTES OR ALTERNATE PEDESTRIAN FACILITIES SHALL CONSIST OF ADA COMPLIANT FACILITIES TO THE LEVEL OF WHICH EXISTS ON THE PEDESTRIAN ROUTE. THE COST FOR ANY PROVISIONS SHALL BE INCIDENTAL TO ITEM 763XXX - MAINTENANCE OF TRAFFIC.

PEDESTRIAN MAINTENANCE OF TRAFFIC: THIS WORK SHALL CONSIST OF PROVIDING AND MAINTAINING AN ACCESSIBLE PEDESTRIAN ROUTE THROUGHOUT THE PROJECT'S LIMITS IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT OF 1990 (ADA) TITLE II, PARAGRAPH 35.130.

THE CONTRACTOR SHALL BE REQUIRED TO REVIEW EACH CURB RAMP LOCATION AND SUBMIT THE APPROPRIATE MAINTENANCE OF TRAFFIC DETAIL AND DEVICES TO THE ENGINEER FOR EACH LOCATION AT LEAST 2 WEEKS BEFORE CONSTRUCTION FOR REVIEW, COMMENT, AND APPROVAL BY THE DISTRICT TRAFFIC SAFETY OFFICER

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GENERAL CONTRACT PLAN NOTES

THE FOLLOWING CONSIDERATIONS SHALL BE TAKEN INTO ACCOUNT WHEN ADDRESSING ACCESSIBLE PEDESTRIAN MAINTENANCE OF TRAFFIC:

ALL PEDESTRIANS, INCLUDING PERSONS WITH DISABILITIES, SHALL BE PROVIDED WITH A REASONABLY SAFE, CONVENIENT AND ACCESSIBLE PATH THAT REPLICATES AS MUCH AS PRACTICABLE THE EXISTING PEDESTRIAN FACILITIES.

MAINTAIN ACCESS TO ALL BUSINESSES AND RESIDENCES AT ALL TIMES.

PROVIDE PEDESTRIAN ACCESS THROUGH OR AROUND THE WORK ZONE. IF A DETOUR IS CHOSEN THE CONTRACTOR MUST SUBMIT THE DETOUR ROUTE TO THE ENGINEER FOR REVIEW AND APPROVAL. THE DETOUR ROUTE MUST MEET OR EXCEED THE CURRENT CONDITIONS.

WORK SHOULD BE PHASED SO THAT ALL AREAS OF AN INTERSECTION/SIDEWALK PATH ARE NOT UNDER CONSTRUCTION AT THE SAME TIME UNLESS A CLEAR PATH IS PROVIDED AND IDENTIFIED.

TRAFFIC CONTROL DEVICES AND OTHER CONSTRUCTION MATERIALS AND FEATURES SHALL NOT INTRUDE INTO THE USABLE WIDTH OF THE SIDEWALK, TEMPORARY PATHWAY OR OTHER PEDESTRIAN FACILITY.

SIGNS AND OTHER DEVICES MOUNTED LOWER THAN 7 FT ABOVE THE TEMPORARY PEDESTRIAN PATHWAY SHALL NOT PROJECT MORE THAN 4 IN. INTO ACCESSIBLE PEDESTRIAN ROUTE.

A SMOOTH, CONTINUOUS HARD SURFACE SHALL BE PROVIDED THROUGHOUT THE ENTIRE LENGTH AND WIDTH OF THE PEDESTRIAN ROUTE THROUGHOUT CONSTRUCTION. THERE SHALL BE NO CURBS OR VERTICAL ELEVATION CHANGES GREATER THAN ¼ IN. IN GRADE OR TERRAIN THAT COULD CAUSE TRIPPING OR BE A BARRIER TO WHEELCHAIR USE.

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GENERAL CONTRACT PLAN NOTES

10. AN AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION (ATSSA) CERTIFIED TRAFFIC CONTROL SUPERVISOR SHALL BE REQUIRED FOR ALL LOCATIONS SPECIFIED IN THE CONTRACT PLANS. THE CONTRACTOR'S GENERAL SUPERINTENDENT FOR THIS PROJECT OR ANOTHER ATSSA CERTIFIED MEMBER OF THE CONTRACTOR'S PROJECT STAFF MAY BE THE ATSSA SUPERVISOR. A COPY OF THE CERTIFICATION CARD FOR THE ATSSA TRAFFIC CONTROL SUPERVISOR SHALL BE SUBMITTED AT THE PRECONSTRUCTION MEETING. THE PAPER CERTIFICATE IS NOT ACCEPTABLE.

11. MESSAGE BOARDS SHALL BE PLACED 10 DAYS IN ADVANCE OF THE WORK AND SHALL REMAIN IN PLACE FOR 5 DAYS AFTER THE START OF WORK. LOCATIONS OF MESSAGE BOARDS AND MESSAGES DISPLAYED SHALL BE REVIEWED AND APPROVED BY THE DISTRICT SAFETY OFFICER.

PAVEMENT MARKINGS

12. SIGNING AND STRIPING PLANS WILL BE PROVIDED AT THE PRECONSTRUCTION MEETING. THE CONTRACTOR WILL NOT BE REQUIRED TO SUBMIT DETAILED DRAWINGS OF THE EXISTING PAVEMENT MARKINGS.

UNLESS OTHERWISE DIRECTED BY THE ENGINEER, WHITE EDGE LINES SHALL WRAP AROUND THE RADIUS OF ALL SIDE STREETS AND MAJOR COMMERCIAL ENTRANCES TO A TANGENT POINT. YELLOW CENTERLINES SHALL BE CONTINUOUS AROUND MEDIAN ISLANDS. ALL DOUBLE YELLOW CENTERLINES SHALL BE PLACED IN A 5-6-5 CONFIGURATION (2 EACH, 5" YELLOW STRIPES WITH A 6" GAP BETWEEN).

13. ANY ERRONEOUS MARKING WILL NOT BE PAID FOR AND SHALL BE CORRECTED IMMEDIATELY AT THE CONTRACTORS EXPENSE. ERRONEOUS MARKINGS OR SHADOWS THAT EXCEED ONE (1) INCH IN WIDTH SHALL BE REMOVED BY EITHER SAND OR WATER BLASTING AS DIRECTED BY THE ENGINEER. NO OTHER REMOVAL METHODS WILL BE ALLOWED. A FLAT BLACK PAINT OR DRIVEWAY SEALER SHALL BE APPLIED IN THE AREA OF THE REMOVED MARKING TO MASK THE REPAIR. ANY DAMAGE TO THE PAVEMENT CAUSED BY REMOVAL OF ERRONEOUS MARKINGS SHALL BE REPAIRED / REPLACED TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTORS EXPENSE.

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GENERAL CONTRACT PLAN NOTES

14. STOP LINES "BARS" SHALL BE INSTALLED IN ACCORDANCE WITH SECTION 3B.16 OF THE 2011 DELAWARE MUTCD.

15. ALL CROSSWALKS SHALL BE INSTALLED IN ACCORDANCE WITH SECTION 3B.18 OF THE 2011 DELAWARE MUTCD.

TRAFFIC SIGNAL NOTES

16. TRAFFIC DETECTION LOOPS SHALL BE PLACED IN THE FINAL WEARING SURFACE UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

17. TRAFFIC DETECTION LOOPS THAT ARE CURRENTLY 5'x7' SHALL BE REPLACED WITH LOOPS THAT ARE 6'x6' AT THE SAME LOCATION. STOP BAR DETECTION LOOPS SHALL BE THE SAME SIZE AS CURRENTLY EXISTING, AND SHOULD BE PLACED STARTING ONE FOOT BEHIND THE STOP BAR, BUT PLACEMENT MAY BE ADJUSTED TO ADDRESS FIELD REQUIREMENTS. IF SEPARATE SIGNAL PLANS HAVE BEEN DEVELOPED, THE PLANS SUPERSEDE THIS NOTE.

PROJECT

18. UNLESS SPECIFIED, OVERLAY WIDTHS SHALL MATCH EXISTING WIDTHS.

19. THE COST OF CLIPPING BACK THE EDGES OF THE ROADWAY, SHOULDERS, AND THE FIRST 3' OF UNPAVED DRIVEWAY ENTRANCES, PICKING UP AND DISPOSING OF WASTE AND EXCESS MATERIAL, AND CLEANING THE EXISTING PAVEMENT PRIOR TO OVERLAY SHALL BE INCIDENTAL TO SECTION 401(). PREPARING UNPAVED DRIVEWAY ENTRANCES BEYOND THE FIRST 3' SHALL BE PAID UNDER THE APPROPRIATE CONTRACT ITEMS: 202000 AND/OR 30200X.

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GENERAL CONTRACT PLAN NOTES

20. BUTT JOINTS SHALL BE PLACED AT ALL INTERSECTING HOT MIX ROADS AND ANY OTHER LOCATIONS AS DIRECTED BY THE ENGINEER. BUTT JOINTS AT DRAINAGE STRUCTURES NOT TO BE RESURFACED SHALL BE AS PER THE INCLUDED PLAN DETAIL OR LOCATION NOTES. BUTT JOINTS CUT PRIOR TO THE DAY OF THE PAVEMENT OVERLAY SHALL BE RAMPED WITH HOT MIX TRM. IN MILLING AREAS, THERE WILL BE NO SEPARATE PAYMENT FOR BUTT JOINTS. AFTER PAVEMENT MILLING, ALL TRANSVERSE VERTICAL DIFFERENCES, RAISED EDGES OF MANHOLES, CATCH BASINS, WATER VALVE BOXES, ETC...SHALL BE RAMPED WITH HOT-MIX TRM AT A 20:1 OR FLATTER SLOPE PRIOR TO OPENING THE ROADWAY TO TRAFFIC. PAVEMENT MILLINGS WILL NOT BE ALLOWED FOR USE AS RAMPING MATERIAL.

21. TAPER MILLING IS INTENDED FOR MILLING IN THE AREA OF FIXED STRUCTURES (I.E. CURBS GUARDRAIL, ETC.) THE MILLED DEPTH AT THE STRUCTURE SHALL BE THE DEPTH OF THE PROPOSED OVERLAY AND 0" AT A DISTANCE OF +/- 6½' FROM THE STRUCTURE. THE COMPUTED DEPTH FOR PAYMENT PURPOSES IS THE AVERAGE OF THE TWO DEPTHS.

22. ALL MILLED MATERIAL SHALL REMAIN THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE STATED.

23. EXCAVATION UP TO 1' IN FRONT OF CURB WILL BE INCIDENTAL TO ITEM 701XXX. HOT MIX PLACED IN FRONT OF CURB WILL BE PAID UNDER ITEM 401XXX. USE OF CONCRETE AS FILL IN FRONT OF CURB WILL NO LONGER BE ACCEPTED UNLESS DIRECTED BY THE ENGINEER. AT EACH LOCATION, BACKFILLING SHALL BE PERFORMED IMMEDIATELY UPON REMOVAL OF FORMS FOR CURB OR SIDEWALK. TOPSOIL, SEEDING, SEALING OF VALLEY GUTTERS, REMOVING OF FORMS, AND PARGING OF CATCH BASINS, SHALL BE COMPLETED WITHIN SEVEN (7) CALENDAR DAYS OF COMPLETION OF THE ITEM OF WORK. ITEM 732XXX, TOPSOIL, SHALL BE USED AS BACKFILL MATERIAL BEHIND CURB AND AROUND SIDEWALK OR/AS DIRECTED BY THE ENGINEER. TOPSOIL SHALL BE SCREENED/SIFTED SO AS NO MATERIAL GREATER THAN .5" IS PRESENT IN MATERIAL USED FOR BACKFILL. EXCAVATED MATERIAL, NOT NEEDED ON THE PROJECT, SHALL BE REMOVED FROM THE CONTRACT AT THE CONTRACTORS EXPENSE. FAILURE TO COMPLY WILL RESULT IN A SUSPENSION OF ALL OTHER CONTRACT WORK WITH TIME CHARGES CONTINUING TO BE ASSESSED.

24. ALL ADJUSTMENTS SHALL BE MADE NO MORE THAN SEVEN (7) CALENDAR DAYS PRIOR TO THE PLACEMENT OF THE FINAL COURSE OF HOT MIX UNLESS OTHERWISE APPROVED BY THE ENGINEER.

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GENERAL CONTRACT PLAN NOTES

FAILURE TO COMPLY WILL RESULT IN A SUSPENSION OF ALL OTHER CONTRACT WORK WITH TIME CHARGES CONTINUING TO BE ASSESSED.

25. ALL PAVING, INCLUDING TURN LANES, SHOULDERS AND INTERSECTIONS, IS TO BE COMPLETED WITHIN SEVEN (7) CALENDAR DAYS FROM THE TIME THE AREA WAS MILLED. FAILURE TO COMPLY WILL RESULT IN A SUSPENSION OF ALL OTHER CONTRACT WORK WITH TIME CHARGES CONTINUING TO BE ASSESSED.

26. THE CONTRACTOR SHALL TAKE CARE IN REMOVING PAVEMENT AROUND UTILITIES, BUTT JOINTS, CURBS, ETC. SO THAT EXISTING PAVEMENT BEYOND THE SPECIFIED DEPTHS IS NOT DAMAGED. ANY DAMAGE CAUSED BY THE CONTRACTOR'S OPERATIONS MAY RESULT IN PLACING LEVELING COURSES AT THE CONTRACTOR'S EXPENSE. THE REMOVAL AND CLEAN UP OF THE HOT MIX RESIDUE WEDGE REMAINING AFTER MILLING OPERATIONS SHALL BE INCIDENTAL TO THE MILLING ITEM. THE REMOVAL OF EXISTING RAISED PAVEMENT MARKERS (RPM'S) SHALL BE INCIDENTAL TO THE APPLICABLE MILLING AND/OR RECLAMATION ITEMS.

27. ALL PORTLAND CEMENT CONCRETE MUST BE RECEIVED FROM AN APPROVED PRODUCTION PLANT UNLESS OTHERWISE APPROVED BY THE ENGINEER. ONLY CALIBRATED VOLUMETRIC CONCRETE TRUCKS WILL BE PERMITTED TO PROVIDE ON-SITE MIXTURES. THIS PERTAINS TO BOTH WORK OCCURRING DURING NORMAL WORKING HOURS AND NIGHTTIME RESTRICTED WORK.

28. DRAINAGE INLETS, WHICH ARE 4' GREATER IN DEPTH AND ARE SLATED FOR REPAIR WILL HAVE STEPS INSTALLED IN ACCORDANCE WITH SECTION 708.07 OF THE STANDARD SPECIFICATIONS. PAYMENT SHALL BE INCIDENTAL TO THE UNIT PRICE BID FOR ITEM 710001.

29. THE PORTLAND CEMENT CONCRETE USED FOR ITEM 710001 - ADJUSTING AND REPAIRING EXISTING DRAINAGE INLET, ITEM 710002 - ADJUST AND REPAIR EXISTING MAN HOLES AND ITEM 750000 - ADJUST WATER VALVE BOX SHALL CONFORM TO THE REQUIREMENTS OF CLASS A CONCRETE (6 HOUR ROADWAY MIX) AS STATED WITHIN SECTION 503.02 OF THE DEPARTMENT'S STANDARD SPECIFICATIONS. ALSO, THE PERIMETER OF THE UTILITY ADJUSTMENT WILL BE SEALED AND WILL BE CONSIDERED INCIDENTAL TO THE APPLICABLE ADJUSTMENT ITEM.

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GENERAL CONTRACT PLAN NOTES

30. WHEN JACKHAMMERING OR THE USE OF A BREAKER IS NECESSARY ON CONTRACTS THAT OCCUR DURING THE NIGHTTIME HOURS THE JACKHAMMERING AND BREAKING MUST CEASE AT 12:00AM REGARDLESS OF ANY NOISE WAIVER THAT MAY EXIST.

31. ANY MILLING MATERIAL REQUIRED TO MAKE AREAS ADA COMPLIANT IF NOT COMPLETED IN THE SAME SHIFT AT CURB, SIDEWALK, CURB RAMPS, ISLANDS, ETC. WILL BE INCIDENTAL TO THE PAY ITEM ASSOCIATED WITH THE WORK. MILLING MATERIAL IS THE ONLY APPROVED MATERIAL FOR THIS PRACTICE.

32. WHEN CONTRACT INCLUDES ITEMS 503001 AND 503002 PATCHES WILL BE PRESUMED TO BE STANDARD PATCH SIZES AND LOCATIONS WILL BE DETERMINED AT THE CONSTRUCTION PRE-WALK. THE USE OF STEEL PLATES WILL BE PROHIBITED. ROADWAY MUST BE RETURNED TO UNRESTRICTED USE AT THE END OF EACH WORK DAY. ALL PCC PAVEMENT WILL BE PRESUMED TO BE 9".

33. ITEM 763621 CONSTRUCTION ENGINEERING, REHABILITATION WILL COMPENSATE THE CONTRACTOR FOR THE FOLLOWING SURVEY ACTIVITIES. ANY LAYOUT ASSOCIATED WITH ADA IMPROVEMENTS, PROVIDING GRADES FOR UTILITY ADJUSTMENTS IF NECESSARY, THE LAYOUT OF LANE LINES FOR PAVING, GRADES FOR THE INSTALLATION OF DRAINAGE STRUCTURES OR OTHER ITEMS OF WORK AS DETERMINED BY THE ENGINEER OR PROGRAM MANAGER. THIS ITEM WILL NOT COMPENSATE THE CONTRACTOR FOR THE LAYOUT OF STRIPING AS THIS IS THE RESPONSIBILITY OF THE STRIPING SUBCONTRACTOR. THE HOURLY PAYMENT WILL BE BASED UPON ACTUAL HOURS OF SURVEYING PERFORMED IN THE FIELD. IT WILL NOT INCLUDE TIME SPENT IN VEHICLE OR OFFICE. THE SURVEY CREW WILL BE RESPONSIBLE UPON ARRIVAL AND DEPARTURE ON THE JOBSITE TO CONTACT A MEMBER OF THE INSPECTION STAFF SO THAT HOURS CAN BE TRACKED FOR PAYMENT. THE CONSEQUENCE FOR NOT DOING THIS WILL BE NON-PAYMENT FOR THE SURVEYING SERVICES.

34. UPON RECEIPT OF THE MONTHLY PAY ESTIMATE ANY ISSUES OR DISCREPANCIES SHOULD BE BROUGHT TO THE ATTENTION OF THE ENGINEER/PROGRAM MANAGER IF POSSIBLE BEFORE THE ISSUANCE OF THE NEXT PAY ESTIMATE. TO ALLOW FOR INVOICES FROM SUBCONTRACTORS ETC., A 60 DAY TIME PERIOD TO REPORT DISCREPANCIES WILL BE PERMITTED. ANY DISCREPANCIES BEYOND THE 60 DAY TIME PERIOD WILL NOT BE ENTERTAINED.

35. FOR ITEM 743007 TRAFFIC OFFICERS, REQUIRED INVOICES WILL BE REVIEWED FOR ACCURACY. ANY MAJOR INACCURACIES WILL BE ADJUSTED ACCORDINGLY. FOR EXAMPLE, IF INVOICE SHOWS

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GENERAL CONTRACT PLAN NOTES

CHARGED HOURS ON A CERTAIN DATE AND WE HAVE DOCUMENTATION THAT NO WORK OCCURED THAT DATE OR NO OFFICERS WERE PRESENT THE INVOICE WILL BE ADJUSTED ACCORDINGLY.

36. PCC PATCHING: WHEN THE PATCH SURFACE WILL BE PART OF THE FINAL SURFACE OF THE ROADWAY, THE PATCH SURFACE SHALL BE FINISHED TO MATCH THE TEXTURE OF THE ADJACENT PAVEMENT. THE PATCH SURFACE CROSS SECTION SHALL MATCH THE PRECEDING AND FOLLOWING PAVEMENT SURFACES. THE ENGINEER MAY TEST FOR EXCESSIVE DEVIATIONS WITH A 10 FOOT STRAIGHTEDGE. WHEN TESTED WITH A STRAIGHTEDGE, EXCESSIVE DEVIATIONS ARE SURFACE DEVIATIONS GREATER THAN 1/8 INCH FROM A REFERENCE LINE BETWEEN POINTS NOT GREATER THAN 10 FEET APART ALONG THE DIRECTION OF TRAFFIC. THE CONTRACTOR SHALL CORRECT UNACCEPTABLE DEVIATIONS IN THE PATCH AREAS.

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NORTH
MAINTENANCE

JOHN F KENNEDY MEMORIAL HIGHWAY FROM BITUMINOUS CONCRETE
JOINT SOUTH OF SALEM CHURCH ROAD BRIDGE TO BITUMINOUS
CONCRETE JOINT AT I-95/SR1 INTERCHANGE

CONTRACT COMMENTS

Curb Ramp Locations:

No curb ramps anticipated at this location

Entrance and Driveway Locations:

No entrance and driveway locations anticipated

Manhole Adjustments:

DelDOT - (2)

Remedy of Repair

The following general improvements will be performed:

Mainline and Shoulder – Bituminous Concrete Patching

Areas of pavement rutting as directed by Engineer - 6" mill (760507) with 6" Bituminous Concrete, Type B 160 Gyrations, PG 76-22 (401816). All milling and base paving must occur during the same shift.

Mainline and Shoulder – Stone Matrix Asphalt

2" Profile Mill, 2" Overlay w/Stone Matrix Asphalt. All milling and paving must occur during the same shift.

Guardrail Replacment – See Attached Plans

**ALL STONE MATRIX ASPHALT MUST BE DELIVERED TO A MATERIAL
TRANSFER VEHICLE**

**THE MAINLINE TRAVEL LANES SHALL MEET THE SURFACE REQUIREMENTS,
AS SPECIFIED IN ITEM 401580 – RIDE QUALITY OF HOT-MIX PAVEMENT OF
THE SPECIAL PROVISIONS.**

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JOHN F KENNEDY MEMORIAL HIGHWAY FROM BITUMINOUS CONCRETE
JOINT SOUTH OF SALEM CHURCH ROAD BRIDGE TO BITUMINOUS
CONCRETE JOINT AT I-95/SR1 INTERCHANGE

COMPLETION DATE

All work on this contract must be completed in 100 calendar days.

Restricted Work Hours: "SEE TABLE"

Recommended Traffic Control: TA5B, TA35, TA37, TA42, TA43, TA44

All lanes must be restored to unrestricted use with all pavement markings at the end of each work shift.

ROAD USER COSTS (RUC) AND LIQUIDATED DAMAGES

- A. Failure to reach Substantial Completion and have all work completed within proposed contract time.

All work on this contract shall be completed within 100 calendar days.

The Road User Cost (RUC) for this contract is \$10,000.00 per Calendar Day.

Road User Costs and Liquidated Damages will be assessed for each Calendar Day that the Contractor's work activities impact the travel lanes beyond the original contract time and any approved time extensions.

Liquidated damages only will be assessed for each Calendar Day over the original contract time and approved time extensions if the Contractor's work does not impact any travel lanes.

The Engineer will be the sole approving authority as to when the contract is complete.

**NORTH
MAINTENANCE****JOHN F KENNEDY MEMORIAL HIGHWAY FROM BITUMINOUS CONCRETE
JOINT SOUTH OF SALEM CHURCH ROAD BRIDGE TO BITUMINOUS
CONCRETE JOINT AT I-95/SR1 INTERCHANGE**

**B. I-95 Temporary Lane and Shoulder Restriction Road User Cost for Failure to Re-open
Lanes**

The Contractor must maintain all through lanes and shoulders of I-95 fully open to traffic except during allowable temporary closure periods specified in the contract plans.

The Department will assess the Contractor Road User Cost for failure to have appropriate lanes of I-95 fully open to traffic by 5:30 AM each morning Monday through Sunday as follows:

**Road User Cost for Contractor's Failure to Re-open Lanes of
Northbound or Southbound I-95**

Time Appropriate Lanes Re-opened	Road User Cost
Prior to 5:30 am	\$ 0.00
5:30 am – 5:44 am	\$ 750.00
5:45 am – 5:59 am	\$ 1,000.00
6:00 am – 6:14 am	\$ 1,250.00
6:15 am – 6:29 am	\$ 1,500.00
6:30 am – 6:44 am	\$ 1,750.00
6:45 am – 6:59 am	\$ 2,000.00
7:00 am – 7:14 am	\$ 2,250.00
7:15 am – 7:29 am	\$ 2,500.00
Not open by 7:30 am	\$ 5,000.00

For every hour, or portion thereof, after 7:30 am, \$2,500.00 will be assessed up to a day total of \$10,000.00.

Official time will be kept by the Engineer or his/her representative.

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NORTH
MAINTENANCE

JOHN F KENNEDY MEMORIAL HIGHWAY FROM BITUMINOUS CONCRETE
JOINT SOUTH OF SALEM CHURCH ROAD BRIDGE TO BITUMINOUS
CONCRETE JOINT AT I-95/SR1 INTERCHANGE

Example Calculation for Assessment of Road User Cost in 15 minute periods:

Lanes opened at 6:50 am

5:30 am – 5:44 am =	\$ 750.00
5:45 am – 5:59 am =	\$ 1,000.00
6:00 am – 6:14 am =	\$ 1,250.00
6:15 am – 6:29 am =	\$ 1,500.00
6:30 am – 6:44 am =	\$ 1,750.00
6:45 am – 6:50 am =	\$ 2,000.00
Total RUC Cost =	\$ 2,000.00

Example Calculation for Assessment of Road User Cost After 7:30 am:

Lanes opened at 9:30 am

5:30 am – 5:44 am =	\$ 750.00
5:45 am – 5:59 am =	\$ 1,000.00
6:00 am – 6:14 am =	\$ 1,250.00
6:15 am – 6:29 am =	\$ 1,500.00
6:30 am – 6:44 am =	\$ 1,750.00
6:45 am – 6:59 am =	\$ 2,000.00
7:00 am – 7:14 am =	\$ 2,250.00
7:15 am – 7:29 am =	\$ 2,500.00
7:30 am – 7:31 am =	\$ 5,000.00
7:32 am – 8:30 am =	\$ 2,500.00
8:31 am – 9:30 am =	\$ 2,500.00
Total RUC Costs =	\$10,000.00

NORTH
MAINTENANCE

JOHN F KENNEDY MEMORIAL HIGHWAY FROM BITUMINOUS CONCRETE
JOINT SOUTH OF SALEM CHURCH ROAD BRIDGE TO BITUMINOUS
CONCRETE JOINT AT I-95/SR1 INTERCHANGE

Holiday and Major Events

Travel lane and ramp closings on multilane highways and Interstates shall not be permitted during the following holiday/event periods:

- December 24 through December 27 (Christmas Day)
- December 31 through January 3 (New Year's Day)
- Friday prior to Easter through Easter Sunday
- Thursday prior to Memorial Day through the Tuesday following Memorial Day
- Dover International Speedway Race Weekends (Thursday prior to the race event through the day after the race event)
- July 3 through July 5 (Independence Day)
- Thursday prior to Labor Day through the Tuesday following Labor Day
- Wednesday prior to Thanksgiving Day through the Monday following Thanksgiving Day
- Firefly Music Festival – Wednesday prior to the event through the Monday following the event

Additional time restrictions may apply as noted in the project plans or as directed by the Engineer. Any requests to waive any restrictions must be made in writing to the Engineer for review and approval. A copy of the request shall be provided to the District Safety Officer for review.

Traffic Control Notes

1. All traffic control and related work shall either be performed entirely by the Contractor's own organization, or totally subcontracted.
2. The contractor shall be required to have an American Traffic Safety Services Association (ATSSA) certified Traffic Control Supervisor on-site at all times during active work. The ATSSA Traffic Control Supervisor's sole responsibility will be the maintenance of

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NORTH
MAINTENANCE

JOHN F KENNEDY MEMORIAL HIGHWAY FROM BITUMINOUS CONCRETE
JOINT SOUTH OF SALEM CHURCH ROAD BRIDGE TO BITUMINOUS
CONCRETE JOINT AT I-95/SR1 INTERCHANGE

traffic on this contract. No work will be permitted unless an ATSSA Traffic Control Supervisor is on-site.

3. All vehicles and equipment (including material delivery trucks) within the work zone shall be equipped with flashing lights. Vehicle emergency flashers are not acceptable. Flashing lights shall be a light bar or other high powered strobe system that is mounted on the vehicle in such a manner as to be clearly visible from all directions around the vehicle. These warning lights shall be visible from a distance of not less than 500 feet under normal atmospheric conditions at night.
4. Access to all DelDOT Maintenance entrances must be maintained at all times.
5. Flaggers will only be permitted within the Welcome Center during the milling and paving of the service roads. We recommend closing service roads to/from the service plaza, detour plans have been provided. Coordinate with the service plaza prior to service road closures.
6. Flaggers are not permitted during the milling and paving of the mainline and shoulders of Interstate 95.
7. Item 401755 Recycled Asphalt Pavement Millings for Roadway Edge is intended to address drop-offs.
8. Coordination may be necessary with bridge rehabilitation project T201507407 Bridge 1-717 I-95 NB over SR-1 if active.

DELAWARE DEPARTMENT OF TRANSPORTATION

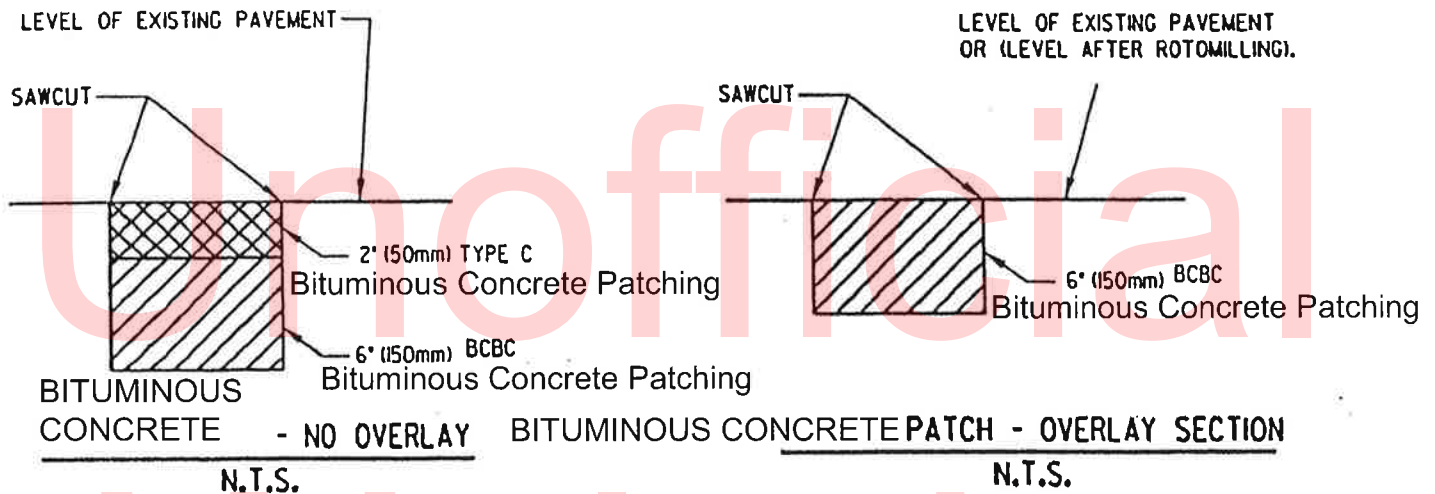
CONTRACT NUMBER- T201606110

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NORTH
MAINTENANCE

JOHN F KENNEDY MEMORIAL HIGHWAY FROM BITUMINOUS CONCRETE
JOINT SOUTH OF SALEM CHURCH ROAD BRIDGE TO BITUMINOUS
CONCRETE JOINT AT I-95/SR1 INTERCHANGE

DETAILS SHEET



•UNDERCUT EXCAVATION PATCHING TO BE UTILIZED
BELOW 8" (200mm) WHEN DIRECTED BY THE ENGINEER.

•UNDERCUT EXCAVATION PATCHING TO BE UTILIZED
BELOW 6" (150mm) WHEN DIRECTED BY THE ENGINEER.

NOTE: PREFERRED EXCAVATION METHOD TO BE BY ROTOMILLING. SAWCUTTING EDGES SHALL BE AS DIRECTED
BY ENGINEER AND DEPENDENT ON THE CONDITION LEFT BY THE ROTOMILLING OPERATION.
BACKFILL FOR UNDERCUT EXCAVATION SHALL BE SUPERPAVE BCBC PATCH (SEPERATE LIFT).
MINIMUM WIDTH OF PATCHING 6' (1.8M).

THIS DETAIL SHALL BE USED FOR ALL HOT MIX PATCHES UNLESS OTHERWISE SHOWN ON THE PLANS.
ALL HOT MIX TO BE PLACED USING A PAVER.

WHEN PCC PATCHING IS REQUIRED ON A COMPOSITE PAVEMENT(HOT-MIX OVER CONCRETE), THE CONTRACTOR
MAY ELECT TO ELIMINATE ANY GRADE DIFFERENCE BETWEEN THE TOP OF THE CONCRETE PATCH AND THE TOP
OF THE EXISTING HOT-MIX PAVEMENT BY EITHER PLACING HOT-MIX TRM MATERIAL(PAYMENT UNDER ITEM 402000)
OR PLACING CONCRETE FLUSH WITH EXISTING HOT-MIX PAVEMENT(ADDITIONAL CONCRETE PAID AS ITEM 503503).
IF CONCRETE IS PLACED FLUSH WITH EXISTING HOT-MIX, THE ROTOMILLING OF THE CONCRETE WILL BE PAID FOR
AS ROTOMILLING HOT-MIX.

P.C.C. PATCHING NOTES

DELAWARE DEPARTMENT OF TRANSPORTATION

CONTRACT NUMBER- T201606110

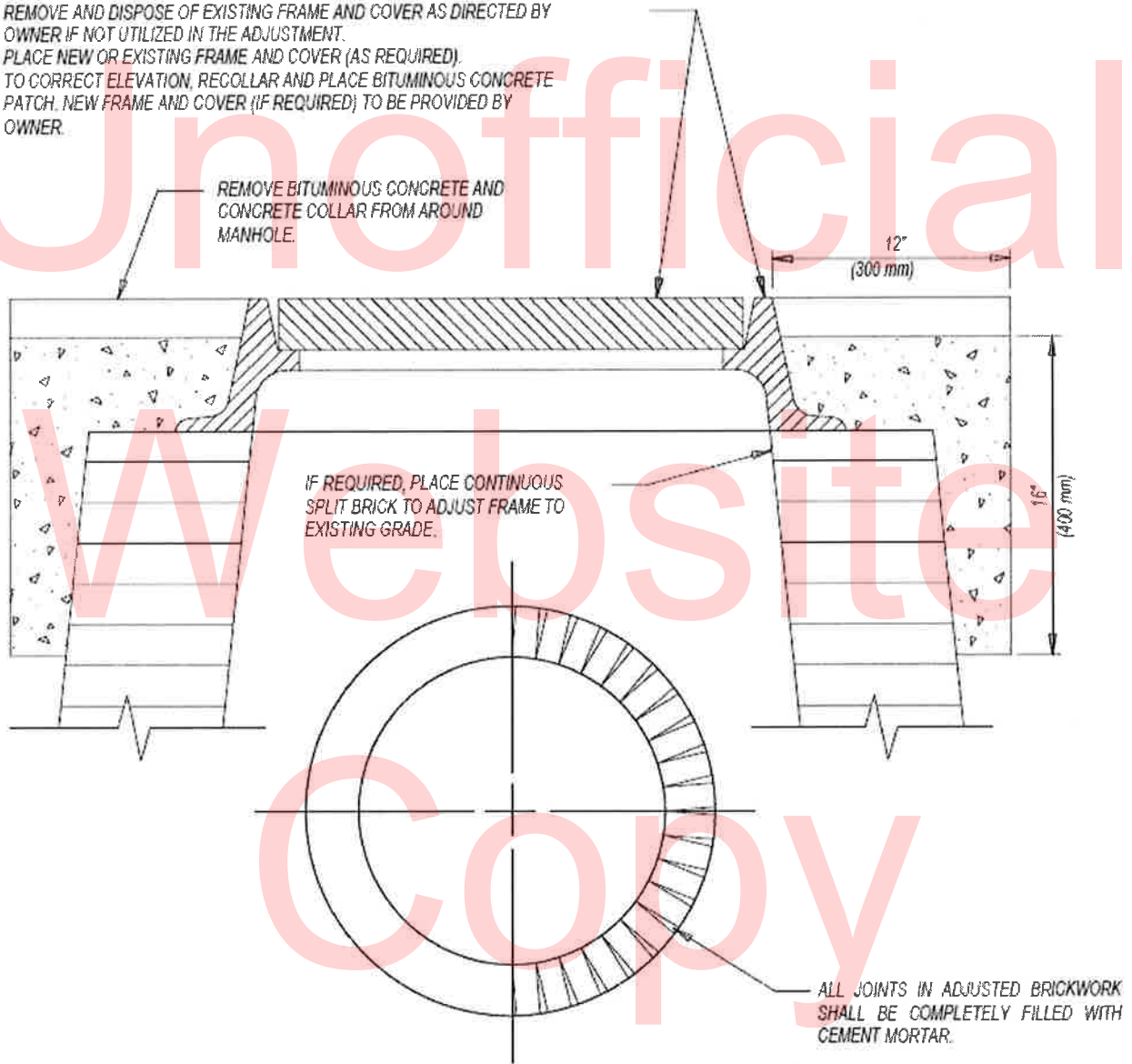
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MAINTENANCE

JOHN F KENNEDY MEMORIAL HIGHWAY FROM BITUMINOUS CONCRETE
JOINT SOUTH OF SALEM CHURCH ROAD BRIDGE TO BITUMINOUS
CONCRETE JOINT AT I-95/SR1 INTERCHANGE

DETAILS SHEET

REMOVE AND DISPOSE OF EXISTING FRAME AND COVER AS DIRECTED BY
OWNER IF NOT UTILIZED IN THE ADJUSTMENT.
PLACE NEW OR EXISTING FRAME AND COVER (AS REQUIRED).
TO CORRECT ELEVATION, RECOLLAR AND PLACE BITUMINOUS CONCRETE
PATCH. NEW FRAME AND COVER (IF REQUIRED) TO BE PROVIDED BY
OWNER.



ADJUSTING AND REPAIRING MANHOLE

N.T.S.

NOTE: MANHOLES IN CONCRETE ROADWAYS SHALL BE SAWCUT FULL DEPTH TO THE SPECIFIED DIMENSION PRIOR
TO ANY ADJUSTMENT BEING MADE. THE SAWCUTTING SHALL BE INCIDENTAL TO ITEM 710002.

DELAWARE DEPARTMENT OF TRANSPORTATION

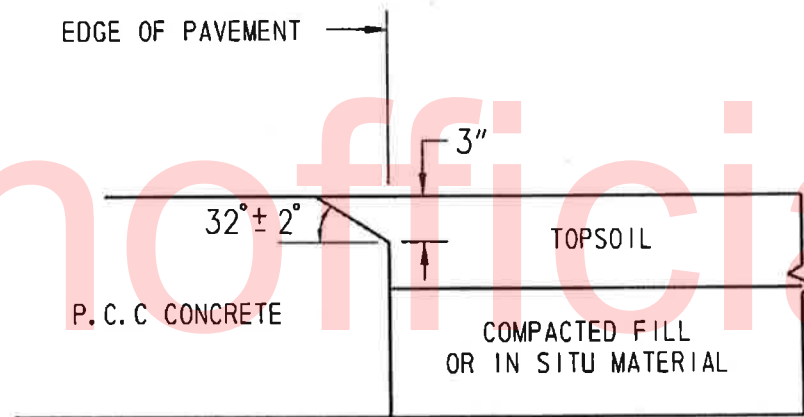
CONTRACT NUMBER- T201606110

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MAINTENANCE

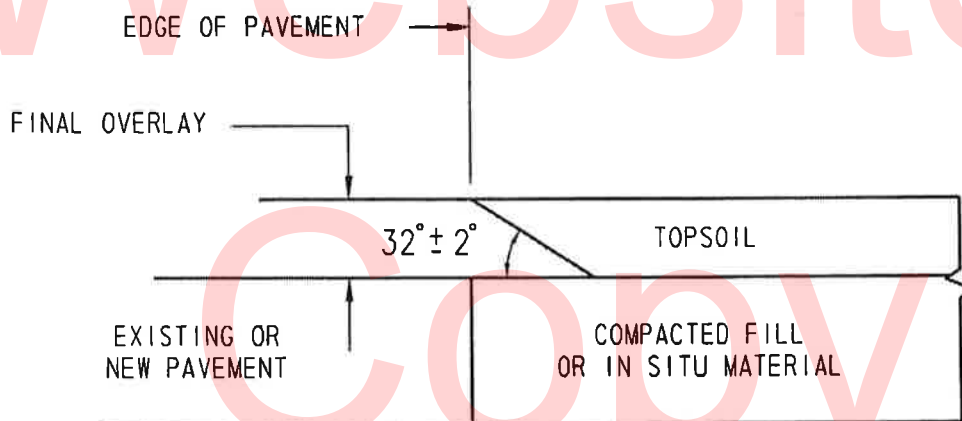
JOHN F KENNEDY MEMORIAL HIGHWAY FROM BITUMINOUS CONCRETE
JOINT SOUTH OF SALEM CHURCH ROAD BRIDGE TO BITUMINOUS
CONCRETE JOINT AT I-95/SR1 INTERCHANGE

DETAILS SHEET



CONCRETE PAVEMENTS

NOT TO SCALE



BIT. ASPHALT MIX PAVEMENTS AND OVERLAYS

NOT TO SCALE

SAFETY EDGE DETAIL

NOT TO SCALE

DELAWARE DEPARTMENT OF TRANSPORTATION

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NORTH MAINTENANCE PAVEMENT AND REHABILITATION, NORTH X, 2016

LOCATION 1 56(JOHN F KENNEDY MEMORIAL HIGHWAY) FROM BITUMINOUS CONCRETE JOINT SOUTH OF SALEM CHURCH ROAD BRIDGE TO BITUMINOUS CONCRETE JOINT AT I-95/SR1 INTERCHANGE

LENGTH 5052.9744 m 16578.0000 L.F. AADT 172509

GENERAL IMPROVEMENTS

BASE REPAIRS AS DIRECTED BY THE ENGINEER, 2" PROFILE MILL, 2" STONE MATRIX ASPHALT, GUARDRAIL REPLACEMENT, RAISED/RECESSED PAVEMENT MARKERS, PAVEMENT MARKINGS

COMMENTS:

See pages 13 - 18 for remedy of repair, time periods of work, road user costs, liquidated damages, holiday/events and traffic control notes.

MATERIAL ESTIMATE FOR LOCATION 1

202000	EXCAVATION AND EMBANKMENT	1,711.00	C.Y.
209006	BORROW, TYPE F	178.00	C.Y.
211002	REMOVAL OF STRUCTURES AND OBSTRUCTIONS (GUARDRAIL)	15,745.00	L.F.
302005	GRADED AGGREGATE BASE COURSE, TYPE B	2,391.00	TON
401517	STONE MATRIX ASPHALT WEARING SURFACE	34,500.00	TON
401755	RECYCLED ASPHALT PAVEMENT MILLINGS FOR ROADWAY EDGE	2,990.00	TON
401816	BITUMINOUS CONCRETE, SUPERPAVE, TYPE B, 160 GYRATIONS, PG 76-22	10,150.00	TON
402000	BITUMINOUS CONCRETE AND/OR COLD-LAID BITUMINOUS CONCRETE (TRM)	220.00	TON
406001	BITUMINOUS CONCRETE PATCHING	153,300.00	SY-IN
701010	PORTLAND CEMENT CONCRETE CURB, TYPE 1-8	30.00	L.F.
701011	PORTLAND CEMENT CONCRETE CURB, TYPE 2	50.00	L.F.
701014	PORTLAND CEMENT CONCRETE CURB, TYPE 1-6	140.00	L.F.
705002	P.C.C. SIDEWALK, 6"	120.00	S.F.
708060	REPLACE DRAINAGE INLET GRATE(S)	1.00	EACH
708061	REPLACE DRAINAGE INLET FRAME(S)	1.00	EACH
710001	ADJUSTING AND REPAIRING EXISTING DRAINAGE INLET	2.00	EACH
710002	ADJUSTING AND REPAIRING EXISTING MANHOLE	2.00	EACH
720050	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	15,313.00	L.F.
720051	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 2-31	625.00	L.F.
720052	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 3-31	694.00	L.F.
720585	GUARDRAIL END TREATMENT ATTENUATOR, TYPE 1-31	9.00	EACH
720586	GUARDRAIL END TREATMENT ATTENUATOR, TYPE 2-31	5.00	EACH
725001	GUARDRAIL TO BARRIER CONNECTION (EXIT TYPE 31)	7.00	EACH
725002	GUARDRAIL TO BARRIER CONNECTION, APPROACH TYPE 1-31	10.00	EACH
726001	END ANCHORAGE 31	8.00	EACH

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NORTH MAINTENANCE PAVEMENT AND REHABILITATION, NORTH X, 2016

LOCATION 1 56(JOHN F KENNEDY MEMORIAL HIGHWAY) FROM BITUMINOUS CONCRETE JOINT SOUTH OF SALEM CHURCH ROAD BRIDGE TO BITUMINOUS CONCRETE JOINT AT I-95/SR1 INTERCHANGE

LENGTH 5052.9744 m 16578.0000 L.F. AADT 172509

GENERAL IMPROVEMENTS

BASE REPAIRS AS DIRECTED BY THE ENGINEER, 2" PROFILE MILL, 2" STONE MATRIX ASPHALT, GUARDRAIL REPLACEMENT, RAISED/RECESSED PAVEMENT MARKERS, PAVEMENT MARKINGS

COMMENTS:

See pages 13 - 18 for remedy of repair, time periods of work, road user costs, liquidated damages, holiday/events and traffic control notes.

MATERIAL ESTIMATE FOR LOCATION 1

743003	ARROWPANELS, TYPE C	350.00	EA-DY
743004	FURNISH AND MAINTAIN PORTABLE CHANGEABLE MESSAGE SIGN	340.00	EA-DY
743005	FURNISH AND MAINTAIN PORTABLE LIGHT ASSEMBLY	1,470.00	EA-DY
743007	** TRAFFIC OFFICERS	3,200.00	HOURL
743010	FURNISH AND MAINTAIN TRUCK MOUNTED ATTENUATOR, TYPE II	500.00	EA-DY
743050	FLAGGER, NEW CASTLE COUNTY, STATE	1,000.00	HOURL
743062	FLAGGER, NEW CASTLE COUNTY, STATE, OVERTIME	100.00	HOURL
746924	FURNISH & INSTALL LOOP WIRE 1-CONDUCTOR #14 AWG ENCASED IN 1/4" FLEXIBLE TUBING IN A LOOP SAWCUT	550.00	L.F.
748015	PERMANENT PAVEMENT STRIPING, SYMBOL/LEGEND ALKYD-THERMOPLASTIC	85.00	S.F.
748019	TEMPORARY MARKINGS, PAINT, 4"	104,200.00	L.F.
748026	TEMPORARY MARKINGS, PAINT SYMBOL/LEGEND	170.00	S.F.
748027	PERMANENT PAVEMENT STRIPING, ALKYD-THERMOPLASTIC, 12"	550.00	L.F.
748502	RAISED/RECESSED PAVEMENT MARKER	1,700.00	EACH
748548	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 5"	91,900.00	L.F.
748549	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 10"	12,300.00	L.F.
748557	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, BLACK, 3"	1,000.00	L.F.
749690	INSTALLATION OR REMOVAL OF TRAFFIC SIGNS ON MULTIPLE SIGN POSTS	80.00	S.F.
758000	REMOVAL OF EXISTING PORTLAND CEMENTCONCRETE PAVEMENT, CURB, SIDEWALK, ETC.	30.00	S.Y.
760011	RUMBLE STRIPS, FULL LANE WIDTH	360.00	L.F.
760016	RUMBLE STRIPS, HOT-MIX	58,000.00	L.F.
760507	PROFILE MILLING, BITUMINOUS CONCRETE	595,000.00	SY-IN
762001	SAW CUTTING, BITUMINOUS CONCRETE	20,325.00	L.F.
762002	SAW CUTTING, CONCRETE, FULL DEPTH	50.00	L.F.
763621	CONSTRUCTION ENGINEERING, REHABILITATION	100.00	HOURL

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NORTH MAINTENANCE PAVEMENT AND REHABILITATION, NORTH X, 2016

LOCATION 1 56(JOHN F KENNEDY MEMORIAL HIGHWAY) FROM BITUMINOUS CONCRETE JOINT SOUTH OF SALEM CHURCH ROAD BRIDGE TO BITUMINOUS CONCRETE JOINT AT I-95/SR1 INTERCHANGE

LENGTH 5052.9744 m 16578.0000 L.F. AADT 172509

GENERAL IMPROVEMENTS

BASE REPAIRS AS DIRECTED BY THE ENGINEER, 2" PROFILE MILL, 2" STONE MATRIX ASPHALT, GUARDRAIL REPLACEMENT, RAISED/RECESSED PAVEMENT MARKERS, PAVEMENT MARKINGS

COMMENTS:

See pages 13 - 18 for remedy of repair, time periods of work, road user costs, liquidated damages, holiday/events and traffic control notes.

MATERIAL ESTIMATE FOR LOCATION 1

905004	INLET SEDIMENT CONTROL, DRAINAGE INLET	89.00	EACH
908001	TOPSOIL (TON)	874.00	TON
908014	PERMANENT GRASS SEEDING, DRY GROUND	3,968.00	S.Y.
908020	EROSION CONTROL BLANKET MULCH	4,030.00	S.Y.
908021	TURF REINFORCEMENT MATTING, TYPE 1	44.00	S.Y.

**** DENOTES FIXED PRICE ITEM**

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NORTH MAINTENANCE PAVEMENT AND REHABILITATION, NORTH X, 2016

CONTRACT QUANTITIES SUMMARY SHEET

202000	EXCAVATION AND EMBANKMENT	1,711.00	C.Y.
209006	BORROW, TYPE F	178.00	C.Y.
211002	REMOVAL OF STRUCTURES AND OBSTRUCTIONS (GUARDRAIL)	15,745.00	L.F.
302005	GRADED AGGREGATE BASE COURSE, TYPE B	2,391.00	TON
401517	STONE MATRIX ASPHALT WEARING SURFACE	34,500.00	TON
401755	RECYCLED ASPHALT PAVEMENT MILLINGS FOR ROADWAY EDGE	2,990.00	TON
401816	BITUMINOUS CONCRETE, SUPERPAVE, TYPE B, 160 GYRATIONS, PG 76-22	10,150.00	TON
402000	BITUMINOUS CONCRETE AND/OR COLD-LAID BITUMINOUS CONCRETE (TRM)	220.00	TON
406001	BITUMINOUS CONCRETE PATCHING	153,300.00	SY-IN
701010	PORTLAND CEMENT CONCRETE CURB, TYPE 1-8	30.00	L.F.
701011	PORTLAND CEMENT CONCRETE CURB, TYPE 2	50.00	L.F.
701014	PORTLAND CEMENT CONCRETE CURB, TYPE 1-6	140.00	L.F.
705002	P.C.C. SIDEWALK, 6"	120.00	S.F.
708060	REPLACE DRAINAGE INLET GRATE(S)	1.00	EACH
708061	REPLACE DRAINAGE INLET FRAME(S)	1.00	EACH
710001	ADJUSTING AND REPAIRING EXISTING DRAINAGE INLET	2.00	EACH
710002	ADJUSTING AND REPAIRING EXISTING MANHOLE	2.00	EACH
720050	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	15,313.00	L.F.
720051	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 2-31	625.00	L.F.
720052	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 3-31	694.00	L.F.
720585	GUARDRAIL END TREATMENT ATTENUATOR, TYPE 1-31	9.00	EACH
720586	GUARDRAIL END TREATMENT ATTENUATOR, TYPE 2-31	5.00	EACH
725001	GUARDRAIL TO BARRIER CONNECTION (EXIT TYPE 31)	7.00	EACH
725002	GUARDRAIL TO BARRIER CONNECTION, APPROACH TYPE 1-31	10.00	EACH
726001	END ANCHORAGE 31	8.00	EACH
743003	ARROWPANELS, TYPE C	350.00	EA-DY
743004	FURNISH AND MAINTAIN PORTABLE CHANGEABLE MESSAGE SIGN	340.00	EA-DY
743005	FURNISH AND MAINTAIN PORTABLE LIGHT ASSEMBLY	1,470.00	EA-DY

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NORTH MAINTENANCE PAVEMENT AND REHABILITATION, NORTH X, 2016

CONTRACT QUANTITIES SUMMARY SHEET

743007	** TRAFFIC OFFICERS	3,200.00	HOUR
743010	FURNISH AND MAINTAIN TRUCK MOUNTED ATTENUATOR, TYPE II	500.00	EA-DY
743050	FLAGGER, NEW CASTLE COUNTY, STATE	1,000.00	HOUR
743062	FLAGGER, NEW CASTLE COUNTY, STATE, OVERTIME	100.00	HOUR
746924	FURNISH & INSTALL LOOP WIRE 1-CONDUCTOR #14 AWG ENCASED IN 1/4" FLEXIBLE TUBING IN A LOOP SAWCUT	550.00	L.F.
748015	PERMANENT PAVEMENT STRIPING, SYMBOL/LEGEND ALKYD-THERMOPLAST IC	85.00	S.F.
748019	TEMPORARY MARKINGS, PAINT, 4"	104,200.00	L.F.
748026	TEMPORARY MARKINGS, PAINT SYMBOL/LEGEND	170.00	S.F.
748027	PERMANENT PAVEMENT STRIPING, ALKYD-THERMOPLASTIC, 12"	550.00	L.F.
748502	RAISED/RECESSED PAVEMENT MARKER	1,700.00	EACH
748548	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 5"	91,900.00	L.F.
748549	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 10"	12,300.00	L.F.
748557	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, BLACK, 3"	1,000.00	L.F.
749690	INSTALLATION OR REMOVAL OF TRAFFIC SIGNS ON MULTIPLE SIGN POSTS	80.00	S.F.
758000	REMOVAL OF EXISTING PORTLAND CEMENTCONCRETE PAVEMENT, CURB, SIDEWALK, ETC.	30.00	S.Y.
760011	RUMBLE STRIPS, FULL LANE WIDTH	360.00	L.F.
760016	RUMBLE STRIPS, HOT-MIX	58,000.00	L.F.
760507	PROFILE MILLING, BITUMINOUS CONCRETE	595,000.00	SY-IN
762001	SAW CUTTING, BITUMINOUS CONCRETE	20,325.00	L.F.
762002	SAW CUTTING, CONCRETE, FULL DEPTH	50.00	L.F.
763000	INITIAL EXPENSE	LUMP	SUM
763621	CONSTRUCTION ENGINEERING, REHABILITATION	100.00	HOUR
763643	MAINTENANCE OF TRAFFIC, ALL INCLUSIVE	LUMP	SUM
905004	INLET SEDIMENT CONTROL, DRAINAGE INLET	89.00	EACH
908001	TOPSOIL (TON)	874.00	TON
908014	PERMANENT GRASS SEEDING, DRY GROUND	3,968.00	S.Y.
908020	EROSION CONTROL BLANKET MULCH	4,030.00	S.Y.

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NORTH MAINTENANCE PAVEMENT AND REHABILITATION, NORTH X, 2016

CONTRACT QUANTITIES SUMMARY SHEET

908021 TURF REINFORCEMENT MATTING, TYPE 1

44.00 S.Y.

** DENOTES FIXED PRICE ITEM

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